TECHNYL STAR®
High-flow PA6 & PA66

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL STAR AF 219 V30 NC

TECHNYL STAR AF 219 V30 NC is a polyamide 6.6, high flow, reinforced with 30% of glass fiber, heat stabilized, for injection moulding. This grade has enhanced moulding behaviors and better surface aspect. It offers an excellent combination between thermal and mechanical properties. This grade restricts electrolytic corrosion.

General

Polymer type	PA66	
Certifications	RoHS	EC 1907/2006 (REACH)
Feature	electrical corrosion resistant low halogen content very high flow	excellent surface finish organic heat stabilized
Applications	automotive applications electrical/electronic applications pulleys	connectors general purpose
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-GF30
ISO 16396 designation	PA66,GF30,MH,S14-100

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.28
Molding shrinkage, normal		ISO 294-4, 2577	%	0.95

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 6500
Stress at break		ISO 527-1/-2	MPa	185 / 110
Strain at break		ISO 527-1/-2	%	2.6 / 7.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	270 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	60 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	8 / 10
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	50 / -

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	258
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	258
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	250

	Condition	Standard	Unit	Value
Burning behaviour				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

	Condition	Standard	Unit	Value
Electrical properties				
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0

Processing conditions	
Drying temperature/time	80 °C

Processing conditions

Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 290 °C
Recommended mould temperature	60 - 90 °C

Injection notes

The material is supplied in airtight bags, ready for use.,In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C.,Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.